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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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09/166,496 10/05/98 BELLMANN

H 10191/021 EXAMINER

PM92/0410

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BROADHEAD B ART UNIT	PAPER
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DATE MAILED: 04/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

See attached PTO-Forms and Office Action.

Office Action Summary

Application No.

09/166,496

Applicant(s)

BELLMANN ET AL.

Examiner

Brian J. Broadhead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 3, 8, 9, 12, 14, 17, and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Bergstrom et al., WO 97/13064.

3. As per claim 1 and 12, Bergstrom et al. discloses a plurality of activatable modules with corresponding priority values on lines 17-18, on page 8; a scheduler activating the modules as a function of the corresponding priority values on line 15, on page 8, the activates modules generating data by analyzing the states of the system on line 20, on page 8; and a priority manager modifying the corresponding priority value of at least one of the modules on line 17, on page 8.

4. As per claim 3 and 14, Bergstrom et al. discloses the priority manager modifies the corresponding priority of the module as a function of the states of the system on lines 15-25, on page 8.

5. As per claims 8, 9, 17, and 18, Bergstrom et al. discloses selecting a first module with the highest priority for activation wherein the scheduler assembles a residual set of modules from the set of activatable modules wherein the scheduler selects a third modules from residual set of the activatable modules for activation on lines 1-20, on page 15; and wherein the scheduler repeatedly selects a third module, each of the third modules having a respective highest priority wherein the scheduler assembles the

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residual set of the activatable modules which exclude the third modules already selected for activation and fourth modules that must not activated simultaneously with the third modules, wherein the scheduler selects repeatedly until the residual set does not contain any of the activatable modules on lines 20-35, on page 15..

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 4, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al., WO 97/13064, in view of Yount, 4787041.

Bergstrom et al. discloses the limitations as set forth above. Bergstrom et al. does not disclose the priority manager modifying the corresponding priority value of a module as a function of a time period in which the module is one of activated and deactivated. Yount teaches of a priority manager modifying the corresponding priority value of a module as a function of a time period in which the module is one of activated and deactivated on lines 41-44, on column 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the priority changing based on the time activated of Yount, in the invention of Bergstrom et al. because such modification would prevent an I/O device fault from being propagated onto the bus so as to cause a total bus failure as stated on lines 53-54, on column 3 of Yount.

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8. Claims 5, 6, 10, 11, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al., WO 97/13064, in view of Kirstein, 4653003.

Bergstrom et al. discloses all the limitations as set forth above. Bergstrom et al. does not disclose the priority manager modifying the corresponding priority value of a particular module of the activatable modules as a function of an activation message which indicates that the particular module has been activated; modifies the corresponding priority value of the particular module as a further function of a corresponding deactivation message; the scheduler verifies that the first and third modules are activated and the unselected modules are not activated; and the system includes one of a motor vehicle. Kirstein teaches of a priority manager modifying the corresponding priority value of a particular module of the activatable modules as a function of an activation message which indicates that the particular module has been activated on lines 26-33, on column 9; modifies the corresponding priority value of the particular module as a further function of a corresponding deactivation message on lines 35-41, on column 9; the scheduler verifies that the first and third modules are activated and the unselected modules are not activated in figure 1, items 1-6; and the system includes one of a motor vehicle on line 9, on column 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the priority changing, the activation checking, and the vehicle of Kirstein in the invention of Bergstrom et al. because such modification would provide an invention that monitors critical variables and takes steps such that when a malfunction occurs, the engine will not be damaged as stated on lines 23-25, on column 1, of Kirstein.

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9. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al., WO 97/13064, in view of Kephart, 5563452.

Bergstrom et al. discloses the limitations as set forth above. Bergstrom et al. does not disclose the priority manager modifying the corresponding priority value of a particular module of the activatable modules as a function of absolute time signals. Kephart teaches of a priority manager modifying the corresponding priority value of a particular module of the activatable modules as a function of absolute time signals on lines 29-39, on column 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the absolute times of Kephart in the invention of Bergstrom et al. because such modification would provide a device or system which automatically operates without human intervention, at selected time periods, to turn the data communication system of the motor vehicle on so that data communications can be implemented prior to the driver's occupancy or utilizing the motor vehicle as stated on lines 8-13, on column 2, of Kephart.

Response to Arguments

10. Applicant's arguments filed 1-26-01 have been fully considered but they are not persuasive. The examiner does not agree that the priority values remain fixed in the DF scheduler. The initial priority that the reference talks about is not the final priority that determines when an evaluation routine is run on each DF module. On page 14, lines 20-25, the running of the routines are decided based on any fault data signals, time elapsed since the engine was started, and the relative priority between the evaluation

routines. The examiner interprets the final priority depending on more than just the set initial priority.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

BJB
April 3, 2001

Jacques H. Louis
JACQUES H. LOUIS
PRIMARY EXAMINER